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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/565,836

Filing Date: January 25, 2006

Appellant(s): FUKUNISHI ET AL.

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Michael Zoppo  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/22/2009 appealing from the Office action  
mailed 12/17/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on 4/14/2009 has been entered.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

JTN Monthly; "New Type Sportswear Fabrics "Zebra" from Toyobo and Itochu, Dec. 1, 2000.

"Background of Invention", Instant application (10/565836).

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-8, 11-17 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over *New type sportswear fabrics "Zebra" from Toyobo and Itochu, JTN Monthly*, December 1, 2000 (Zebra herein) in view of instant Background of Invention.

Zebra teaches a fabric that exhibits the concept of "**lighter, stronger, and more beautiful fabric a perennial goal for fabrics since the days when silk was riding high.**"

Zebra uses two yarns one a 30 denier (33 dtex) high multifilament textured yarn for the warp and a 37 denier (41 dtex) superhigh multifilament yarn; .2 denier (.3 dtex) per filament for the weft.

The major current (as of publication date 2000) fabrics are taffeta and ripstop densely weaving the yarns above. The warp density being 200yarns per inch and the weft density being 150 wefts per inch (warp to weft ratio 1.2).

The weight is ultra-light 56 grams per square meter for taffeta and 60grams per square meter for ripstop.

Tearing strength is 1900 g (18.6 N) in the warp and 1000g (9.8N) in the weft.

Zebra teaches 'despite being fine denier and high density fabrics, they maintain sufficient tearing strength because of a new way of finishing.'

Zebra teaches the fabric having air permeability of .6 cc/square cm/sec, giving the fabric 'downproofing' properties.

As for touch, Zebra offers adequate body, softness and a very light hand because of directly spun super high multifilament yams

Zebra specifically teaches the claimed tear strength, air permeability, warp and weft density/ratio, and individual fiber fineness ranges as recited by instant claims.

The limitations with regards to lack of resin finish, lack of double side calendaring and single side calendaring are product-by-process limitations. The MPEP is clear with respect to product-by-process limitations:

"the lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then

obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531,535,173 USPQ 685,688 (CCPA 1972)."

"The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)."

In view of the similarities between the claimed fabric, and that of the prior art, it is reasonable to believe that the product made by the prior art process would be either identical to or only slightly different from the claimed product. In such a situation, the burden of proof shifts to applicant to prove that the claimed product is materially different.

The basis weight, thickness and yarn linear density taught by Zebra are only slightly different than those recited in the claims. Since the Zebra fabric is taught as one exhibiting "lighter, stronger and more beautiful fabrics" it is considered an obvious variation to the Zebra fabric to produce a fabric with the slight variation in weight and yarn linear density claimed.

With regards to changes in size/proportion the MPEP is clear:

### **“Changes in Size/Proportion**

*In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.).

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

Recited 'bending rigidity', fabric thickness, and lip width (ripstop design width) and cover factor are all fabric properties that are directly related to the fabric properties taught above in Zebra.

With respect to product by property type limitations including newly added "glossiness" limitations, the MPEP is clear:

**"PRODUCT AND APPARATUS CLAIMS - WHEN THE STRUCTURE RECITED IN THE REFERENCE IS SUBSTANTIALLY IDENTICAL TO THAT OF THE CLAIMS, CLAIMED PROPERTIES OR FUNCTIONS ARE PRESUMED TO BE INHERENT**

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, **a prima facie case of either anticipation or obviousness has been established.** *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

"When the PTO shows a sound basis for believing that the products of the applicant and

the prior art are the same, the applicant has the burden of showing that they are not (MPEP 2112.01)."

Since all structure and most material properties are taught by Zebra it follows that the fabric's bending rigidity, fabric thickness, lip width, cover factor, and glossiness as recited in the claims are inherently present in the Zebra fabric.

Although Zebra teaches essentially all of the claimed limitations of the instant fabric, Zebra does not specifically recite the use of polyamide yarns in the production of the fabric.

However, the instant Background of Invention section admits that polyester multifilament (as in Zebra), nylon multifilament (polyamide) and composites thereof have been used commonly in sportswear having so-called 'downproofing' properties due to the intrinsic excellent mechanical properties of polyester and/or nylon.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the Zebra fabric to use polyamide yarns rather than polyester yarns to produce a 'lighter, stronger, more beautiful fabric' that still retains appropriate strength to be used in sportswear applications that require a so-called 'downproofing' property.

#### **(10) Response to Argument**

Appellant's argument that the prior art reference 'performs differently' and is 'weaker' than the claimed invention is incorrect. The prior art clearly discloses tear strengths either in (18.6N) or nearly in (9.8N) the recited 10N to 50N range. Since the

two fabrics do perform nearly identically, the burden to show a material difference between that of the prior art and the claimed invention has not been overcome.

Arguments regarding fabric thickness versus density are not persuasive. A direct extrapolation of total fabric thickness can not be made from yarn linear density alone. Especially in view of the references' teaching that the type of finishing is what results in the prior art fabric being light while still exhibiting high tear strength. The exact mechanical/geometric results clearly affect the fabric and result in the unexpected/anti-intuitive relatively high strength while still being low weight/thickness.

Arguments regarding rip width are incorrect. The reference discloses rip stop weaving so the rip width is without a doubt a measured property of the exact rip stop weaving design, i.e. distance between ripstop structures in the fabric.

The examiner has addressed all limitations materially and in a consistent manner as set forth by the MPEP and cited case law, and although some of the exact dimensions and values of the claimed dimensions and properties are slightly different they are not statistical outliers from the claimed dimensions/ranges. And since the reference clearly teaches a fabric nearly identical to the claimed fabric, and a technical problem nearly verbatim to that of the instant invention, the examiner's position is that the specifically recited properties and dimensions are not patentable or non-obvious as there is little to no actual fabric structure claimed. The little structure that is claimed, (fabric, rip stop weave) is clearly taught by the reference fabric.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Robert H Muromoto, Jr./

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/Gary L. Welch/

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